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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First-Named Inventor: MOULSLEY, Timothy	Docket No.: B34-358A
Application No.: 10/603706 Conf.: 3387	Art Unit: Unknown
Date Filed: 06/25/2003	Examiner: Unknown

Title: RADIO COMMUNICATION SYSTEM

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE TO NOTICE TO FILE CORRECTED APPLICATION PAPERS

Sir:

In response to the Notice to File Corrected Application Papers dated 09/15/2003, enclosed are (a) copies of replacement drawings that correct the extraneous copy marks; and (b) copy of page 8 of the specification that was originally filed with the parent applications.

Applicant believes that the concerns raised by the Notice to File Corrected Application Papers have been addressed.

Therefore, Applicant respectfully requests that a patent issue without further delay.

All correspondence concerning this application and the letters patent when granted should be addressed to the undersigned Attorney of Record.

Please charge any fees due, and credit any over payment to Deposit Account No. 14-1270.

Date: 11/17/03

Respectfully submitted,

By _____

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CERTIFICATE OF MAILING or TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to "M/S Missing Parts, Commissioner for Patents, P.O. Box 1450, Arlington, VA 22313-1450" or facsimile transmitted to the USPTO at ( ) - , on the date indicated below.

(Date) 11/17/2003. (Signature) _____

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emulation is performed, demonstrating the usefulness of the emulation method. Increasing the error rate of the power control commands to 0.1 produces a general degradation of about 0.2dB in the received E_b/N_0, but the performance of the MS 110 with emulated small steps remains close to that of the MS 110 with direct implementation of small steps.

The second simulation relates to a slowly changing channel, with a MS 110 moving at 1km per hour in a six path Rayleigh channel with a error rate for the power control commands of 0.01. Figure 4 is a graph of received E_b/N_0 in dB required for a uplink bit error rate of 0.01 against the power control step size used in dB. The lines in the graph are identified in the same way as for Figure 3.

In this situation there is a small advantage in using power control steps of less than 1dB. As with the first simulation, the results obtained using emulated small steps are very close to those with direct implementation of small steps.

In a further application of this method the value of *G* may be set to a value other than *S/R* if it is considered to be advantageous for reasons such as reducing the effect of errors in the interpretation of the transmitted power control commands (for example by averaging over a greater time period). In some circumstances a MS 110 might therefore choose to use a step size larger than the minimum which it is capable of implementing.

The detailed description above relates to a system where the BS 100 transmits power control commands separately from instructions to the MS 110 to set its power control step size. However, the present invention is suited for use in a range of other systems. In particular, it can be used in any system in which there is a variable power control step size and in which the BS 100 instructs the MS 110 to use a particular value for this step. It can also be used in systems in which the power control step size is fixed, or at least fixed while a power control step size emulation method is being used. Instead of the BS 100 instructing the MS 110 to use a particular step size, that to be used could also be determined by negotiation between the BS 100 and MS 110.